

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A method for treating a non-virally induced pre-cancerous lesion of the skin of a patient, said method comprising topically administering a pharmaceutically effective amount of a polyphenol to said patient.

2-3. (Cancelled)

4. (Currently amended) The method according to ~~claim 3~~ claim 1, wherein the lesion is a lesion not caused by papilloma virus.

5. (Previously presented) The method according to claim 4, wherein the lesion is not a lesion selected from the group consisting of hyperplasia, Condyloma acuminata, warts and cervical intra-epithelial neoplasia.

6. (Previously presented) The method according to claim 1, wherein the patient is a human.

7. (Cancelled)

8. (Previously presented) The method according to claim 1, wherein the polyphenol is isolated from tea.

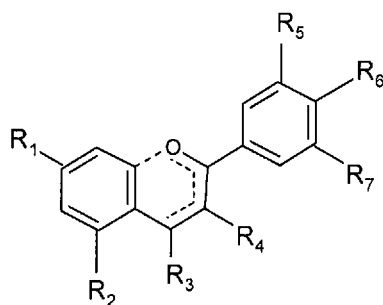
9. (Previously presented) The method according to claim 1, wherein the polyphenol is extracted from a tea.

10. (Previously presented) The method according to claim 9, wherein the tea is a green tea.

11. (Previously presented) The method according to claim 1, wherein the polyphenol is isolated from a tea extract.

12. (Previously presented) The method according to claim 1, wherein the polyphenol is selected from the group consisting of catechol, catechol gallate, epicatechol, epicatechol gallate, epigallocatechol, epigallocatechol gallate, galocatechol and galocatechol gallate.

13. (Previously presented) The method according to claim 1, wherein the polyphenol has the general formula (I)



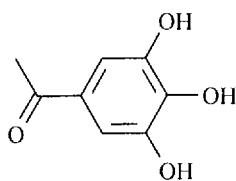
(I)

in which

R₁, R₂ and R₆ are independently from each other -H or -OH,

R₃ is -H or =O and

R₄ is independently from each other -H, -OH or a group of the formula (III)

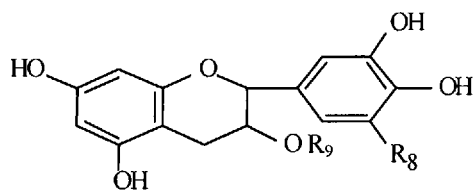


(III)

R₅ and R₇ are independently from each other -H, -OH or -OCH₃, and

----- optionally represents a bond.

14. (Currently amended) The method according to claim 12, wherein the catechol has the general formula (II)

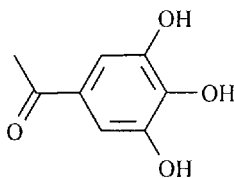


(II),

in which

R_8 is -H or -OH, and

R_9 is -H or a group of the formula (III)



(III).

15. (Previously presented) The method according to claim 12, wherein the catechol is selected from the group consisting of of (+)-catechol, (-)-catechol, (+)-catechol gallate, (-)-catechol gallate, (+)-epicatechol, (-)-epicatechol, (+)-epicatechol gallate, (-)-epicatechol gallate, (+)-epigallocatechol, (-)-epigallocatechol, (+)-epigallocatechol gallate, (-)-epigallocatechol gallate, (+)-gallocatechol, (-)-gallocatechol, (+)-gallocatechol gallate and (-)-gallocatechol gallate.

16. (Previously presented) The method according to claim 1, wherein the polyphenol is present in the form of a mixture of polyphenols, in particular catechols, especially containing catechol, catechol gallate, epicatechol, epicatechol gallate, epigallocatechol, epigallocatechol gallate, gallocatechol and/or gallocatechol gallate,

whereas the gallates of catechol, epicatechol, epigallocatechol or of gallocatechol are most preferred in the mixture of polyphenols.

17. (Previously presented) The method according to claim 16, wherein the mixture of polyphenols is a tea extract.

18. (Previously presented) The method according to claim 17, wherein the tea extract is a green tea extract.

19. (Previously presented) The method according to claim 17, wherein the mixture of polyphenols is selected from the group consisting of catechol, catechol gallate, epicatechol, epicatechol gallate, epigallocatechol, epigallocatechol gallate, gallocatechol and gallocatechol gallate.

20. (Previously presented) The method according to claim 19, wherein the catechols are selected from the group consisting of (-)-epicatechol, (-)-epicatechol gallate, (-)-epigallocatechol, (-)-epigallocatechol gallate, (+)-gallocatechol and (-)-gallocatechol gallate.

21. (Previously presented) The method according to claim 19, wherein the catechols are selected from the group consisting of about 2-20% (w/w) epicatechol, about 2-20% (w/w) epicatechol gallate, about 1-25% (w/w) epigallocatechol, about 40-75% (w/w) epigallocatechol gallate, about 0.05-5% (w/w) gallocatechol and about 0.5-20% (w/w) gallocatechol gallate.

22. (Previously presented) The method according to claim 19, wherein the catechols are selected from the group consisting of about 10.8% (w/w) of epicatechol,

about 6.5% (w/w) of epicatechol gallate, about 9.2% (w/w) of epigallocatechol, about 54.8% (w/w) of epigallocatechol gallate and about 4.0% (w/w) of gallocatechol gallate.

23. (Previously presented) The method according to claim 19, wherein the mixture contains about 10.8% (w/w) of (-)-epicatechol, about 6.5% (w/w) of (-)-epicatechol gallate, about 9.2% (w/w) of (-)-epigallocatechol, about 54.8% (w/w) of (-)-epigallocatechol gallate and about 4.0% (w/w) of (-)-gallocatechol gallate.

24. (Previously presented) The method according to claim 19, wherein the catechols are selected from the group consisting of about 2-12% (w/w) epicatechol, about 4-15% (w/w) epicatechol gallate, about 1-8% (w/w) epigallocatechol, about 60-68% (w/w) epigallocatechol gallate, about 0.05-1% (w/w) gallocatechol and about 1-7% (w/w) gallocatechol gallate.

25. (Previously presented) The method according to claim 19, wherein the catechols are selected from the group consisting of about 5-8% (w/w) epicatechol, about 5-7% (w/w) epicatechol gallate, about 2-3% (w/w) epigallocatechol, about 61-65% (w/w) epigallocatechol gallate and about 2-4% (w/w) of gallocatechol gallate.

26. (Previously presented) The method according to claim 19, wherein the catechols are selected from the group consisting of about 5-8% (w/w) epicatechol, about 5-6% (w/w) epicatechol gallate, about 6-8% (w/w) epigallocatechol, about 61-65% (w/w) epigallocatechol gallate and about 2-4% (w/w) of gallocatechol gallate.

27. (Previously presented) The method according to claim 1, wherein the polyphenol is combined with an additive.

28. (Previously presented) The method according to claim 27, wherein the additive is selected from the group consisting of petroleum jelly, wax, oleyl alcohol, propylene glycol monostearate, propylene glycol monopalmitostearate and isopropyl myristate.

29. (Cancelled)

30. (Previously presented) The method according to claim 1, wherein the polyphenol is contained in a carrier selected from the group consisting of an emulsion, a gel, a cream and an ointment.

31. (Previously presented) The method according to claim 1, wherein the method for treating said lesions is combined with a different anticancer treatment.

32. (Previously presented) The method according to claim 31, wherein the different anticancer treatment is selected from the group consisting of surgery, electrodessication, curettage, excision, Mohs micrographic surgery, radiation, proton therapy, chemotherapy, photodynamic therapy, cryosurgery, laser, immunotherapy, vaccine therapy and biologic therapy.

33. (Withdrawn) The method according to claim 32, wherein the chemotherapy is carried out with an agent selected from the group consisting of podophyllin, 5-fluorouracil, bleomycin, interferon, imiquimod, and mixtures thereof.

34. (Withdrawn) The method according to claim 32, wherein the radiation is selected from the group consisting of X-ray radiation and γ -radiation.

35. (Previously presented) The method according to claim 1, wherein the lesion of the skin is selected from the group consisting of actinic keratosis, solar keratosis, Bowen's disease, acanthoma, cutaneous horn, hyperkeratosis, keratosis, molluscum contagiosum, xanthelasma, xanthoma, fibroma, verucca senilis, seborrheic keratosis, papillomatosis, radiodermatitis, sailor's skin, and erythroplasia queyrat.

36. (Previously presented) The method according to claim 35, wherein the lesion of the skin is actinic keratosis.